

APPENDIX A

TRANSPORTATION ISSUES

SUMMARY

Transportation issues have been central to the public discussion regarding the preparation of an updated Comprehensive Plan for Clark County. This report represents a summary of the policy actions recommended by staff to the board in support of the comprehensive plan map defined by the board in the January 14, 2004 work session.

There are five policy actions related to transportation which the board may take in support of the updated comprehensive plan. One of those actions, adoption of a transportation element is included in the consideration of the comprehensive plan text. The others discussed in this staff report, for the board's consideration, are:

1. Adoption of a new 20-year transportation capital facilities plan constrained to the revenue identified in the *Revenue Perspective*.
2. Confirmation of the 6-year Transportation Improvement Program as the first 6 years of the transportation capital facilities plan.
3. Amendments to the transportation concurrency standards contained both in the transportation element of the comprehensive plan and in Clark County Code.

The balance of this report describes the analysis conducted in response to the January 14, 2004 plan map.

ANALYSIS

The analysis of the January 14, 2004 plan map followed the approach used with the prior plan alternatives examined in this process. The plan map was converted to households and employment projections based on the yields from the vacant buildable lands model and the application of the expected zoning. As much as possible, the allocation of households and employment was reviewed with local jurisdictions and adjustments were made as needed to reflect local knowledge of development potential. Table A.1 summarizes the land use assumptions used for the transportation analysis. The number of households and employees is larger than the numbers used to determine the 20-year land need. This difference was the anticipated, because the January 14th plan map was completed with the assumption that further study would reveal the locations that should remain rural and be deleted from the area of urban expansion.

Table A.1 Land Use Assumptions Used in Transportation Analysis

Urban Growth Area	Households	Retail Employment	Other Employment
Battle Ground	16,926	4,367	12,683
Camas	11,722	1,427	15,764
La Center	1,184	1,299	426
Ridgefield	4,644	647	7,824
Vancouver	134,908	46,469	160,659
Washougal	3,820	735	3,168
Yacolt	365	24	195
Rural Area	32,988	975	8,022
TOTAL	206,558	55,943	208,741

(Approximations based on TAZ's, which are often divided between jurisdictions)

The land use assumptions were input into the regional transportation demand model maintained by RTC to prepare an assessment of the likely demand on the county's roadway system (assuming the list of improvements identified in the current Metropolitan Transportation Plan). The county's transportation capital facilities plan project list was prepared by identifying projects that would address identified capacity deficiencies in the system given the likely transportation demand. The initial 20-year listing of transportation capital projects was supplemented by including those projects that are considered essential to the maintaining corridor level-of-service as identified by the county's transportation concurrency program staff. Many of these projects are not typically identified by the regional transportation model (e.g., intersection improvements). The household and employment demand was tested by County staff on the combined transportation network consisting of the existing roadway network, improvements included in the Metropolitan Transportation Plan, and additional projects listed in the new Clark County Capital Facilities Plan.

REVENUE PERSPECTIVE

The 20-year transportation capital facilities project list is constrained to the revenue expected by the county for transportation capital investment over the next 20-years, as identified by the *Revenue Perspective*. The revenue analysis estimates property tax dedicated to transportation ("road fund"), expected gasoline tax distributions to the county, expected miscellaneous revenue streams that accrue for transportation purposes and expected grants (as a function of local revenue generation based on historic trend). The analysis accounts for expenses not directly accounted for in the capital costs but needed in order for those capital facilities to be provided. The estimated available revenue for county transportation improvements over the 20-years of the land use plan is \$536.1 Million (in 2003 dollars). The proposed project list totals \$535,060,000 of expenditures. Many of the projects have pre-engineering estimated costs.

20-YEAR TRANSPORTATION CAPITAL FACILITIES PLAN

Table A.2 presents the proposed 20-year list of transportation capital projects. This list, as amended, should be adopted with the comprehensive plan. It will form the basis of the county's portion of a future update to the joint City of Vancouver – Clark County traffic impact fee program. In constraining the 20-year transportation capital project list to the available revenue, the existing (2004-2009) transportation improvement program was considered "protected." Areas of *Focused Public Investment* are identified in table 2 next to projects that were identified in an assessment of regional transportation needs. In order to further provide for maximized mobility in these areas of economic development potential, a small reserve fund has been identified to assist with minor projects, cross circulation, and intersection needs.

The first portion of the list includes projects already included in the 6-year Transportation Improvement Project (TIP). The second portion, "priority A", includes projects that have not previously ranked high enough to be included in the TIP. The third and last portion has new projects that have not been reviewed in previous TIP processes.

Table A.2 Clark County 20-Year Transportation CFP List

Location	From	To	Project Type	Lanes	Estimated Cost	Fund Status	FPIA's Served
Transp Safety Imp Prog	20 yrs @	\$600K/yr.	On-going		\$12,000,000	TIP	
Road Preservation	20 yrs @	\$2,700K/yr	On-going		\$54,000,000	TIP	
Envir. Imp Mitigation	20 yrs @	\$250K	On-going		\$5,000,000	TIP	
Neighborhood Traffic	20 yrs @	\$250K	On-going		\$5,000,000	TIP	
NE 162nd Ave	NE 39th St	NE Ward Road	Upgrade	5	\$10,600,000	TIP	
Salmon Creek (Betts) Bridge	x	x	Replacement	3	\$350,000	TIP	
NE 117th/119th Ave	Hwy 99	east of Salmon Cr.	Upgrade	3	\$400,000	TIP	Hazel Dell
NE 134th Street	Rockwell	WSU	Upgrade	3	\$45,000	TIP	
NE 15th Ave	NE Union Road	NE 179th St	Upgrade	3	\$4,300,000	TIP	
NE 199th Street	SR 503	NE 142nd Ave	Upgrade	3	\$350,000	TIP	
NE 72nd Ave	north of NE 88th St	NE 119th Street	Upgrade	5	\$8,600,000	TIP	St. Johns
NE 76th St	SR 503	NE 142nd Ave	Upgrade	3	\$3,600,000	TIP	
NE Covington Road	NE 102nd Ave	NE 76th St	Upgrade	3	\$15,000	TIP	
NE Hwy 99	NE 20th Ave	NE 134th St	Upgrade	5	\$10,500,000	TIP	Hazel Dell
NE St Johns Road	NE 50th Ave	NE 72nd Ave	Upgrade	5	\$10,700,000	TIP	St. Johns
NE Ward Road	NE 172nd Ave	NE 182nd Ave	Upgrade	2	\$7,300,000	TIP	
NW 117th/119th St	NW 7th Ave	NE Hazel Dell	New Road	3	\$6,000,000	TIP	Hazel Dell
NE 76th St	NE 94th Ave	NE 107th Ave	Upgrade	3	\$1,600,000	TIP	
Hazel Dell Ave	NE 99th St	NE 114th St	Upgrade	3	\$5,000,000	TIP	Hazel Dell
NE 117th St	Hazel Dell Ave	Hwy 99	Upgrade	3	\$3,800,000	TIP	Hazel Dell
NE Heisson Road/244th St	x	x	Upgrade	2	\$400,000	TIP	
NE 137th Ave	Fourth Plain	NE 76th St	Upgrade	3	\$1,100,000	TIP	

Hwy 99	South RR Bridge	NE 63rd St	Upgrade	5	\$4,200,000	TIP	Hazel Dell
NE 10th Ave	Carty Rd	NE 259th St	Upgrade	2	\$2,500,000	TIP	
I-5/NE 139th-134th Intchnge	NE 10th Ave	NE 20th Ave	County share of project	3&5	\$11,500,000	TIP	
NE 63rd St	Andresen Rd	I-205	Upgrade	3	\$6,600,000	TIP	
NE 88th St	Hwy 99	Andresen Road	New Road/Upgrade	3	\$19,500,000	TIP	St Johns
SE 1st St	NE 192nd Ave	Parker Street	Upgrade	4	\$0	TIP	
Subtotal TIP					\$194,960,000		
Andresen/Padden Intchnge			Interchange	x	\$15,000,000	a	St Johns
Hazel Dell Ave @ 63rd Ave			Int Upgrade		\$0	a	Hazel Dell
Hazel Dell Ave @ 78th St			Int Upgrade		\$500,000	a	Hazel Dell
Hazel Dell Ave @ 99th St			Int Upgrade		\$500,000	a	Hazel Dell
Hwy 99	NE 99th St	NE 117th St	Upgrade	5	\$3,300,000	a	Hazel Dell
NE 10th Ave	NE 134th St	NE 154th St	Upgrade	3	\$5,700,000	a	Disc' Corr
NE 10th Ave	NE 154th St	NE 164th St	Extension/Upgrade	2	\$6,000,000	a	Disc' Corr
NE 119th St	Salmon Crk Ave	NE 72nd Ave	Upgrade	3	\$10,800,000	a	
NE 119th St	NE 72nd Ave	SR-503	Upgrade	5	\$11,000,000	a	
NE 119th St	SR-503	NE 172nd Ave	Upgrade	3	\$16,500,000	a	
NE 137th Ave	Vancouver CL	Fourth Plain	Upgrade	3	\$3,600,000	a	
NE 137th Ave	NE 99th St	NE 144th St	New Road	3	\$10,000,000	a	
NE 137th Ave	NE 144th St	NE 159th St	New Road	3	\$5,000,000		
NE 137th Ave /142nd Ave	NE 159th St	NE 199th St	New Road	3	\$7,000,000	a	
NE Delfel Road	NE 179th St	NE 184th Street	Realigned	3	\$1,500,000	a	Disc' Corr
NE 15th/20th Ave	NE 154th St	NE 15th Ave	Upgrade	3	\$3,000,000	a	Disc' Corr
NE 15th Ave	NE 179th St	SR-502	New Road	3	\$5,800,000	a	Disc' Corr
NW 179th St	I-5	NW 11th Ave	Upgrade	5	\$9,500,000	a	Disc' Corr
NE 179th St	NE 10th Ave	NE 29th Ave	Upgrade	5	\$16,300,000	a	Disc' Corr
NE 182nd Ave @ NE 159th St			Int Upgrade		\$500,000	a	
NE 88th St	Hazel Dell Ave	Hwy 99	New Road	3	\$8,100,000	a	Hazel Dell
NE Hwy99	NE 63rd St	NE 99th St	Pedestrian Route Completion	x	\$2,500,000	a	
NE Hwy 99 @ NE 63rd St			Int Upgrade		\$500,000	a	Hazel Dell
Padden Parkway	SR-503		New Interchange	x	\$17,000,000	a	
NE 179th St	NE 29th Ave	Cramer Rd	Upgrade	3	\$16,100,000	a	
NE 92/94 th Ave	NE 106th St	NE 219th St	Upgrade & new road	3	\$16,000,000	a	

NW 11th Ave	NW 139th St	NW 146th St	Upgrade	3	\$5,000,000	a	
NE 199th St	NE 10th Ave	NE 72nd Ave	Upgrade	3	\$16,000,000	a	Disc' Corr
Highway 99	NE 117th St	NE 129th St	Upgrade	5	\$6,000,000	a	Hazel Dell
NE 99th St	St Johns Rd	SR-503	New Road/Upgrade	3	\$11,400,000	a	St Johns
NE 99th St	SR-503	NE 172nd Ave	Upgrade	3	\$14,600,000	a	
Rosewood Ave	NE 102nd Ave	NE 105th Ave	Upgrade	3	\$600,000	a	
Subtotal TIP + Priority A					\$440,260,000		

Route Connection Resource for Focused Investment Areas					\$20,000,000		FPIA's
NE 139th St	NE 50th Ave	NE 72nd Ave	Upgrade	2	\$3,800,000		
NE 50th Ave	Lalonde Dr	NE 139th St	Upgrade	3	\$11,400,000		
NE 72nd Ave	NE 119th St	NE 219th St	Upgrade	5	\$47,500,000		
NW 209th St	NW 31st Ave	Delfel Rd	Upgrade	2	\$6,100,000		
ITS Corridor Completion					\$6,000,000		
TOTAL					\$535,060,000		

LEVEL-OF-SERVICE STANDARDS

Even with the capacity provided by the improvements in the transportation CFP and the Metropolitan Transportation Plan, it is not possible to maintain the previously adopted corridor level-of-service standards. The county population will increase by nearly 200,000 residents. The number of jobs will also grow. With the assistance of economic development efforts by the County and others the number of new jobs is expected to also increase in proportion to the number of residents. These two major factors, along with the projected increases in vehicle miles traveled per person, will result in levels of congestion and delay that will require a lowering of standards. Table A.3 provides a comparison of the existing level-of-service standards and those proposed for amendment. In some cases, no comparison is possible because a new transportation concurrency corridor is being proposed for addition to the system with the adoption of this comprehensive plan.

Level-of-service standards serve both as a standard of measure in administration of the County's transportation concurrency program and as a general indicator of congestion levels. Goals of Transportation Concurrency and the Growth Management Act require a balance between land development and the transportation facilities serving that development. The variables in this balancing include the growth rate, transportation investments, and level-of-service (LOS) standards. Transportation improvement investments are projected into the future based on a "constant" of current revenue streams. The growth rate was chosen from a range provided by the State Office of Financial Management. The LOS standards are dependent on the first two variables (improvements

and growth rate). Maintaining current LOS standards; e.g. congestion levels; would require either increasing transportation investments through higher taxes, or a reduction in the chosen growth rate and the subsequent supply of buildable lands.

The following table A.3 indicates those corridors where level-of-service is being proposed for reduction. Highlighted text simply refers to new corridor endpoints or segments. Changing LOS standards are in bold. These standards have been analyzed and set based on 20 year projections in volumes and estimated changes in signalization. However, these standards do not guarantee there to be no concurrency testing failures during the 20 year period. One purpose of the concurrency program is to prevent land development from greatly outpacing transportation services. If specific areas of the County rapidly develop before the public and private investments are made in surrounding corridors, moratoria may occur.

Table A.3 Proposed Level-of-Service Reduction Areas

CORRIDORS	Corridor Limits Description	Minimum Travel Speeds (mph) CURRENT	Minimum Travel Speeds (mph) PROPOSED
North-South Roadways			
Lakeshore Avenue	Bliss Road to NE 78th Street	22	22
Hazel Dell Avenue	Highway 99 to NE 63rd Street	22	17
Highway 99 & NE 20th Avenue			
NE 20th Avenue (North)	NE 179th Street to south of NE 134th Street	17	17
Central	north of NE 134th Street to NE 99th Street	13	13
South	NE 99th Street to NE 63rd Street	17	13
St. Johns Road	NE 119th Street to NE 68th Street	22	22
NE 72nd Avenue	SR-502 to NE 119th Street	27	22
Andresen Road	NE 119th Street to NE 58th Street	13	13
Gher / Covington Road	Padden to SR-500	17	17
SR-503			
North	NE 199th St to NE 119th Street	27	22
South	NE 119th Street to Fourth Plain	13	13
Ward Road	Davis Road to SR-500	13	13
NE 162nd Avenue	Ward Road to NE 39th Street	22	13
NE 182nd Avenue	Risto Road to Davis Road	27	27
East-West Roadways			
SR-502	NW 30th Ave (BG) to NE 179th Street	27	22
179th Street			
West	NW 41st Avenue to I-5	22	22
West Central	I-5 to NE 72nd Avenue	22	22
139th Street & Salmon Creek Avenue			
139th Street (West)	Seward Road to I-5	22	17
Salmon Creek Avenue (West Central)	I-5 to NE 50th Avenue	13	13
119th Street			
West	Lakeshore to Hazel Dell	22	22
West Central	Highway 99 to NE 72nd Avenue	17	17
East Central	NE 72nd Avenue to SR-503	22	22
99th Street			

West	Lakeshore to I-5	22	17
West Central	I-5 to St. Johns Road	22	22
East	SR-503 to NE 172nd Avenue	22	22
Padden Parkway			
East	SR-503 to Ward Road	NA	22
East Central	I-205 to SR-503	22	17
78th / 76th Street			
West	Lakeshore to I-5	17	17
West Central	I-5 to Andresen (on Padden)	17	17
East Central	Andresen to SR-503	17	17
East	SR-503 to Ward Road	17	17
Fourth Plain Boulevard			
East Central	I-205 to SR-503	13	13
East	SR-503 to 162nd Avenue	13	13
63rd Street			
West Central	Hazel Dell to Andresen	22	22
East Central	Andresen to NE 94th Avenue	17	17

Transportation Concurrency Ordinance Adoption List

<u>Ordinance No.</u>	<u>Content</u>
2000-10-03	Amended the Transportation Concurrency Management System (CCC 12.41); amended Chapt 3 and Appendix A of the Comprehensive Plan and adopted a revised CFP.
2001-08-01A	Modified traffic impact fee (CCC 18.65.080); modified transportation CFP; dissolved TIF overlay areas
2003-4-9	Emergency Salmon Creek moratorium
2003-4-9	Adopted Salmon Creek moratorium
2003-4-9	Confirmed expansion of the Salmon Creek moratorium area
2003-4-9	Re-adoption of the transportation standards.
2003-4-9	Modifed Salmon Creek moratorium to permit filing of hospital development application
2003-4-9	Extended Salmon Creek moratorium
2003-04-02	Extended Salmon Creek moratorium
2003-4-9	Modified transportation concurrency and CFP; amended Arterial Atlas; Salmon Creek "fix".
2003-04-16	Corrected 2003-04-09
2003-06-02	Reserves capacity in Salmon Creek area for preferred land uses.